Dear FCC:

Kindly consider these "Reply to Comments" for Docket 16-239 NPRM, RM-11708, RM-11759 and other petitions dealing with the Amateur Radio Service.

I am an Extra class licensed Amateur Radio Operator and will be significantly impacted by any rulings associated with the subject NPRM and rulemaking proposals. My call sign is K2YWE. I am also the president of the South Shore Amateur Radio Club of Maryland and speak for their interests in this matter as well.

Examination of the comments on these proceedings show that the large preponderance of amateur operators are against both RM 11708 and Docket 16-239 NPRM. Using the FCC ECFS system, the amateur community has definitively rejected both the ARRL's RM-11708 petition and the FCC's proposed solution. More than 90% of of replies filed in the NPRM are firmly against the FCC proposal and urge that the FCC, not a voluntary organization like the ARRL, provide narrowband emission limits that protect existing narrowband communication of less than 200 Hz CW and data operators and less than 400 or 500 Hz RTTY and data operators.

A large number of comments urge that a bandwidth limit be instituted and regulated by the FCC, and that the CW/RTTY/narrowband operators must be protected with a regulatory, not voluntary, bandwidth emission limit of 200 HZ and 400/500 Hz in the lower portions of every data subband.

Most replies note current violations of ACDS/robot stations and the use of non-published protocols (Pactor II/III), along with out of band emissions of the ACDS stations. Comments are clear that the FCC must clarify its rules for open transmissions that are published and not proprietary, and must clean up current ACDS/robot stations before allowing any expansion of bandwidth or their privileges.

Many comments also urge the FCC to determine if using "https//" web browsing (which ensures encryption even when using an open air interface) and if email is properly allowed on HF/MF Amateur radio bands. Given the documented evidence of business use, bypass of other commercial means, and out of band ACDS transmissions, the Commission must carefully consider the impact of its rulings on open, transparent, or encrypted transmissions that the FCC and others cannot detect.

To quote the citations contained in the comments on this subject by Dan White, W5DNT, a sample of detailed comments worthy of the Commissions consideration include the following:

"In Reply to Comments on Nov. 9, 2016, Ms. Janis Carlson filed a very thoughtful and detailed summary of various proceedings.

https://ecfsapi.fcc.gov/file/11091541913133/FCC%20WT%2016- 239%20ARRL%20reply.pdf In her comments, she outlines 5 options the FCC could take to prevent continual bombardment on the issue of data in the amateur radio service, and demonstrates the continual problems of the ARRL's ambition for internet and email usage through past and present proposals. Her reply illustrates the FCC's profound need to regulate the HF/MF bands in a way that protects narrowband CW/RTTY operations.

Mr. Chris Crisler posted a Reply on October 21, 2016.

https://www.fcc.gov/ecfs/filing/1020807821008 In his Reply, Mr. Crisler points out vital facts regarding the mission and value of amateur radio and its historic ability to enable amateurs to innovate using "narrowband technology." He points out myriad problems with the NPRM and with RM-11708, and cogently illustrates the need to ensure bandwidth limitations. In fact, he notes they should be "jealously guarded" to save spectrum space from commercial users of the spectrum. He points out the illegal or wasteful use of internet and email on

the tiny portions of HF/MF spectrum, and notes (as most comments did) that proprietary signaling and equipment are being used for the data ambitions of a small minority of amateur operators.

Mr. Crisler urges the commission to not delete bandwidth limitations and to prevent “spectrum-hogging” from entering amateur radio. He recommends a maximum bandwidth.

Mr. Michael Dinelli, on October 13, 2016, noted that RM-11708 and the NPRM are “incompatible with narrow bandwidth modes (i.e. continuous wave (CW) and radio teletype (RTTY)” Mr. Mcvay, https://www.fcc.gov/ecfs/filing/109151227915014/document/109151227915 014b3ba Mr. McVay clearly stated why a bandwidth emission limit is needed, and urged for 500 Hz bandwidth limit protection and asked for all stations greater than 500 Hz, including ACDS, to operate up in the band (this is like all IARU and Japan regulations, as well as other numerous countries that follow IARU specifications. McVay also pointed out very clearly that Pactor I is published and unencrypted, but all latter versions of Pactor that are used today by Winlink and ACDS are not published and should not be on the amateur bands.

He also offered up suggested FCC regulations to fix the current problems.

Ward Silver, N0AX: https://www.fcc.gov/ecfs/filing/1011947518902 Mr. Silver is clear on the intense interference that will result if either RM-11708 or 16239 is adopted. He points out some maximum bandwidth limit is required, and chooses to study commercial modem signals (not just amateur radio signaling which must follow openness and non-business usage rules) to justify 6 kHz as upper limit. I believe this is a flawed argument since ham radio is noncommercial and uses shared variable frequencies, and is not channelized like commercial/ military signals that use the list of 182 signals he proposed. Thus, 6 kHz seems vastly wider than anything the amateur HF spectrum should allow, due to the tiny sliver of HF spectrum that exists for the 750,000 US amateurs and 3 million global amateur operators. Mr. Silver conceded much greater interference will surely result with any allowance for wider band data than under today's 300 baud limit, which is an implicit justification for IARU narrowband protections that so many comments have urged for, in order to avoid the disruption from signal spreading he discusses in his comment. In section 4 of his comment, he points out the problem with today's encryption and lack of public identification of data stations, and calls on FCC to address this, as did so many comments. The FCC cannot ignore this constant theme of the amateur radio community. Mr. Silver does not opine on the vital issue of whether internet or email should be allowed in the amateur radio service, and does not point out or acknowledge the present day violations occurring when data stations move out of the ACDS sub bands to carry Pactor 3 or Winmor 1600 traffic. This comment shows that the interference will be intolerable unless data stations are not confined to a small sub band of the Data/RTTY segments for all aspects of the operations. Mr. Silver makes an incorrect assumption that many comments do in assuming that faster data rates would lead to less time occupancy on the air- this is wishful thinking and may seem appealing, but is not based in fact, since all increases in data rates since the history of the internet have shown that more, and not less, data traffic usage and occupancy occur when the data rates are increased (this is called Parkinson’s law - think of AOL in its early days, as dial up speeds increased from 1200 bps to 4800 bps, etc, when many more users and applications began to use the service). There must be a limited sliver of spectrum within the RTTY/Data HF segments for this ever expanding data traffic – its irresponsible to allocate the ENTIRE RTTY/DATA spectrum for bandwidths that are more than 200-500 Hz wide. They must be contained, given Mr. Silver’s observation of interference.

Professor Ted Rappaport, N9NB, visited the FCC and pointed out numerous issues and potential solutions. His presentations were clear about existing interference, existing violations and encryption problems that Pactor IV would perpetuate, as well as illuminating the clear interference that wideband data would have on existing CW and RTTY operations in the lowest 50-100 kHz of each HF/MF amateur band. He made convincing arguments of how and why the FCC should protect narrowband (CW/RTTY) users with a regulation on emission bandwidth of 200 Hz in the lowest portion of each HF/MF RTTY/Data band, and increase the regulation on bandwidth to 500 Hz in the upper part of the lowest 100 kHz of the HF/MF RTTY/Data bands. He points out the sensible approach of providing a small part of the existing non-WARC bands for 2.8 kHz data, where such wider band data could exist at 100 kHz above the lowest band edge on each non-=WARC HF/MF band. He

shows that this is directly in line with generally accepted practices around the world and in many world governments, including Japan which has the largest amateur radio population.

Professor Rappaport's presentation points out national security concerns with encrypted data, and illustrates massive violations that occur today from the small number of ACDS stations. He asked the FCC to address this before granting any rule changes that would allow more encrypted data or internet/email traffic on HF/MF.

https://www.fcc.gov/ecfs/filing/10925839109476 https://www.fcc.gov/ecfs/filing/1092719005718 Norman Douglas Grant K1DG https://www.fcc.gov/ecfs/filing/1011223992722 Mr. Grant makes clear the need for all data stations to provide identification, and the critical need of the FCC requiring a "listen before transmit" feature due to proven interference which he has suffered. A large number of other comments provided similar observations in RM-11708. Mr. Grant discusses the lack of etiquette of data stations, and the clear need mitigate interference by the FCC adopting and regulating Band plans similar to IARU, but with the force of law.

https://www.fcc.gov/ecfs/filing/1011120327463 The ARRL, in its comment to the NPRM on October 11, 2016, https://www.fcc.gov/ecfs/filing/1011120327463/document/1011120327463a 567 agreed that interference to narrowband signals is an absolutely valid concern and certain result of the FCC proposal, and stated that the ARRL attempted to strike a balance with a 2.8 kHz bandwidth limit for the very narrow HF/ MF allocations. The ARRL never gave any proof why its 2.8 kHz proposal should be selected, or why it's the 'right' choice, and in fact is very clear in its comments about the large concern it has about interference without some bandwidth limit. The ARRL also concedes that narrowband operators have a very valid concern. This alone should demonstrate the requirement of the FCC to protect the narrowband 200 Hz maximum bandwidth limit by regulation, as well as providing protection for 500 Hz maximum bandwidth operations, in the HF MF bands. In fact, nothing in the ARRL comments speak directly against providing a more narrow bandwidth at other portions of the spectrum as so many of the filers have urged for in these proceedings. The FCC must see the ARRL response as a clear admission of the validity of the cries of the vast number of comments who urge for regulation as recommended by all global IARU regions. In fact, the ARRL changed its tune from its original RM-11708 petition, and acknowledged and embraced the plight of incumbent CW/RTTY/Narrowband operators having to endure large amounts of interference in its comments to NPRM 16-239, a notable and welcomed departure from its complete lack of acknowledgment of the interference offered up in its initial RM 11708 filing in November 2013. Still, however, the ARRL has not acknowledged or discussed the continuing FCC Violations and lack of station ID, Listen before transmit, or control station monitoring and out of band ACDS operation that occurs today with the relatively small number of stations that use ACDS or the Pactor 3/Pactor 2/Winmoor 1600 signaling protocols that are encrypted and unintelligible to FCC and official observers. This alone should heighten the urgency for the FCC, and not ARRL or another private organization, to regulate data to a limited sub band in the non WARC HF/MF bands, where the data signals have wider emission bandwidths than the vast majority of CW / RTTY stations.

ARRL highlights the EmComm value of STANAG and Pactor 4, but makes an incorrect assumption that many comments do in assuming that faster data rates would lead to less time occupancy on the air- this is wishful thinking and designed to seem appealing, but is not based in fact, since all increases in data rates since the history of the internet have shown that more, and not less, data traffic usage and occupancy occur when the data rates are increased (Parkinson's law), when many more users and applications began to use the data services. ARRL also does not point out that Pactor and WINLINK are primarily used for email and Internet browsing, and not for emergency communication.

Kenneth Talbot offered up a quick post about needing 200 Hz/ 500 Hz bandwidth limits and requiring all signals to be published or open.

Jim George, N3BB, filed a mailed reply illustrating Parkinson's Law, how data usage always expands never contracts, thus contradicting argument by the few people in favor of NPRM and RM-11708, and RM-11759."

In summary, I join many others in urging the FCC to reassess the severe impact of its NPRM and the vast rejection by the amateur community, based on sound technical and operational grounds, of RM-11708. The amateur radio service requires the FCC to solve existing ACDS and encryption issues, and to ensure narrowband operations (200 Hz for JT31, PSK31, CW) and 400/500 Hz (RTTY) are protected as many governments and the IARU require. These existing IARU and governmental protections provide generally accepted standards for the FCC to follow.

Submitted by
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